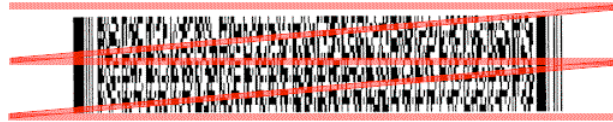# Missouri's Use of UltraForms® 2-D Barcode in Tax Processing

Internet 2-D Barcode Technology

How 2-D Barcode Processing Works

Form Entry
The taxpayer or a paid preparer uses tax preparation software or UltraForms® to complete forms.

Print Form With Barcode
Before printing, the software will collect the data from the form and will convert it to an image of the barcode which will print on the form.

Sign and Submit
Taxpayer will review the form, sign, attach supporting documents and mail as usual

Open and Scan
Revenue's data entry division will receive form with barcode, scan form into tax system and apply document locator number (DLN)

Validate and Post
The scanned data will go through the same validation and posting process as if it had been manually keyed or submitted electronically.

2-D Barcode for State of Missouri

- Tax Year 1999 Missouri implemented 2-D barcode with two approved software vendors.
- Tax Year 2003 Missouri had ten approved software vendors.

2-D barcode program has been very successful!

Fill-in Forms That Calculate

- Missouri has offered fill-in forms that calculate since 1999 (single forms in each file).
- We started searching for a way to incorporate a 2-D barcode **within the PDF file**, without any cost to the taxpayers. DOR didn't want to make taxpayers download any plug-ins or fonts to use the file.

UltraForms® Technology

- Late August, 2003 MoDOR was contacted by DataIntro's® Team wanting to demonstrate their product.

- It was exactly what we were looking for! Missouri purchased at the end of October.

- Had forms ready to be released on CD by end of November.

Embedding 2-D Barcode

- Using the UltraForms® Technology, you can embed a 2-D barcode in the PDF file within minutes!

- Total control of placement of barcode, character limitations, error correction control, etc.

- Automatically builds a script, using the fields you have created in the PDF file. This saves a lot of time!

Form MO-1040 Files

- **Form MO-1040 Pack** (includes Forms MO-A, MO-CR, MO-NRI, MO-PTS, MO-CRPs and worksheet) **One** barcode to capture the data from ALL these forms.
- **Form MO-1040** (includes Form MO-A, MO-CR, MO-NRI and worksheet) (majority of taxpayers qualify to use this smaller version of the file.)

New! 2-D Barcode on Short Forms

- Form MO-1040A, One Income Filers
- Form MO-1040B, Married Filing Combined
- Form MO-1040C, Residents/Nonresident With Other State Income, and Active Duty Military
- Form MO-1040P, Property Tax Credit/Pension Exemption
- Form MO-PTS, Property Tax Credit Schedule
- Form MO-PTC, Property Tax Credit Claim

2-D Barcode Returns Processed

Tax Year 2003
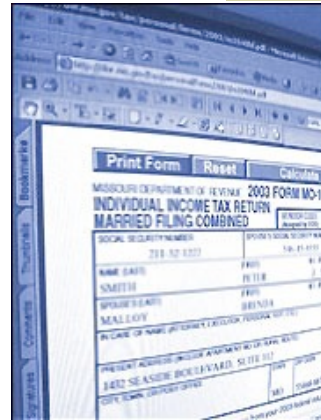
- As of May 20, 2004 there were 284,134 returns processed using 2-D barcode technology
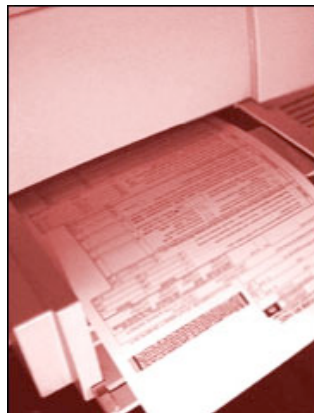- 56,823 of these returns were processed using the UltraForms® Technology!

Instantly Updated

- By having the forms posted on the web, if there are changes to be made, the forms can be altered and updated within a short time.
- Taxpayer will have the latest forms available at all times.

Taxpayer Enters the Data

- The taxpayer enters the data. *No plug-ins, libraries, or fonts needed.* The free Acrobat® Reader is the only thing needed to enter the data.
- Compatible with Adobe® Reader 4.0 and above.

Print the Form

- The 2-D barcode is created when the taxpayer prints the form.
- The 2-D barcode always contains the correct information.

Capture the Data

- UltraForms® returns are scanned, using Symbol Technology's LS6800 fixed mount scanners.

2-D Barcode Processing

- Open and sort mail
- Pre-edit
- Scan
- Save
- Write DLN on return

Pricing

- Missouri purchased DataIntro's® SDK for $50,000. This is for unlimited forms. This is a **one-time fee**.
- Yearly maintenance fee is 20% of the cost of the software. This gives you free updates, technical support, etc.

ultraforms®
2-D BARCODES FOR PDF FORMS

Other Cost Factors

- Missouri had already purchased 30 Symbol LS6800 fixed mount scanners, so no need to purchase scanners.
- Time to write the specifications for the Short Forms to match the long form specifications.
- Time to program the JavaScript in the forms. You don't need to program the calculations, you can use these forms as a fill-in forms only.
- Time for testing.
- Time to modify the backend system to accept these forms.

2-D Barcode Scanning

- On the average, 60+ returns can be scanned per hour

  versus
- 20 returns being manually keyed per hour

Money Saved

- DOR estimates that it costs 86 cents per return to manually process from start to finish.
- For each return that is scanned, there is a savings of 57 cents!

DOR Problems

- Labels (that DOR provides) covering the 2-D barcode—copies that you couldn't peel label off without destroying some of barcode
- Print lid (DOR issue)
- New programmer with DOR had multiple jobs and didn't have portions of the program ready to accept some of the returns.
- Acrobat® 6 fields—fixed and reposted within short time of discovering problem.

Taxpayer Issues

- Taxpayers writing in information **after** the form was printed and/or taxpayers manually filling in ALL data
- No SSN entered—DOR system would kick these returns out, if no primary SSN was entered
- Poor print quality—ink spread, cheap paper, recycled ink, etc.

Problems With 2-D Barcode

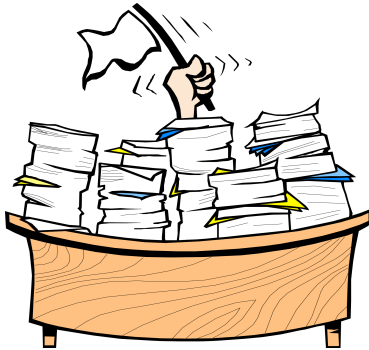- MAC problems—a small number of returns came in that couldn't be read.

Examples of MAC barcodes
that couldn't be scanned

Changes Necessary for Internet 2-D Barcode Returns

- The forms used for 2-D barcode need to be modified to accommodate barcode
- 2-D barcode specifications need to be written
- Program needs to be modified to accept 2-D data scanned (backend programming)
- Testing process
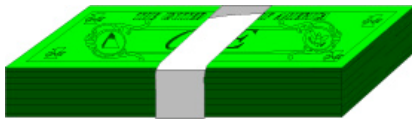- Separate P.O. Boxes for 2-D barcode returns

Advantages of 2-D Barcode

- Quicker processing of returns
- More accurate
- Requires fewer employees
- No additional cost to taxpayer

Need to Continue to Educate People on 2-D Barcode

- Page on Internet
- Seminars/Conferences
- Include Brief 2-D Barcode Explanation in Tax Book (long form)
- Listserves

Why is simplification such a long word?

Money Saved
This Tax Season

- Missouri scanned 56,823 UltraForms® for a savings of more than $32,389.
- Fewer errors in processing which means fewer notices sent to taxpayers, for additional savings.

Missouri's Filing Season

- E-Filed Returns: 1,149,990
- Software Developers Forms: 956,359
- Forms from Books: 279,534
- Flat Forms Printed: 128,311
- Web: 58,232
- Telefile: 57,556

- UltraForms®: 56,823
- Prepared from DOR Field Offices: 18,078
- WebFile: 11,163

The Future of Internet 2-D Barcode Filing

- Each year we expect to increase the number of returns using 2-D barcode, which includes other types of taxes
- With increased number of 2-D barcode returns, we anticipate decreasing number of temporary employees hired

Contact for Missouri 2-D Barcode

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